13.56 MHz Contactless

MIFARE® DESFire® EV1 Credentials

MIFARE DESFire EV1 Card • 1450, 1456
MIFARE DESFire EV1 / HID Prox Combo Card • 1451, 1457

- High Security - Mutual authentication, AES 128, DES and triple-DES data encryption and unique 56-bit serial number.
- Read/Write Functionality - Perfect for multi-functional memory applications.
- Transition Solution - Add smart card applications to existing HID proximity technology access control systems.
- True Credit Card Thickness - Use with all direct image and thermal transfer printers.

ACCESS interoperability.

HID MIFARE® DESFire® EV1 cards are designed for diverse applications that demand the highest levels of security, including access control and biometric identification, cashless vending, public transportation, ticketing and customer loyalty cards. Available in PVC and Composite PET/PVC card construction, the HID MIFARE DESFire EV1 card is exceptionally durable and can accept an embeddable contact chip for logical access and biometric ID systems.

HID MIFARE DESFire EV1 credentials have 8 Kbytes of dynamic memory arranged in easy-to-define application folders and data files. MIFARE DESFire EV1 data can be encrypted with the highly secure Advanced Encryption Standard (AES 128) algorithm assuring that data in the card is secure before, during and after the transaction, as well as between folders and files within the credential itself.

13.56 MHz MIFARE DESFire EV1 read/write technology combined with 125 kHz HID Prox technology can be integrated into a single ISO standard thickness card (custom programming with Indala formats is also available). This converged card is suitable for adding MIFARE DESFire EV1 applications to an existing HID Prox-based access control system.

When security and performance count most, HID's MIFARE DESFire EV1 cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo to quickly and easily identify genuine cards.

Key Features of MIFARE DESFire EV1 Technology

- Proven, Reliable Technology - MIFARE DESFire EV1 is based on open global standards for security, and is interoperable with existing MIFARE infrastructures.*
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- Standards Compliant - MIFARE DESFire EV1 is fully complaint with ISO 14443A 1-4, and has been awarded CC EAL 4+ for card security.

**MIFARE DESFire EV1 is not compatible with the PIV read application used with a DESFire 0.6 card*

Features

Long Life Passive, no-battery design allows for an infinite number of reads.

Durability Strong, flexible and resistant to damage.

Photo ID Compatible Print directly to the card with a direct image or thermal transfer printer.

PVC Card Surface Card is optimized for dye sublimation printing.

Customizable
Specify your own text or graphics artwork.

Thin
0.030″ (0.076 cm) card can be carried with credit cards in a wallet or purse. Use with a badge holder and strap clip or lanyards for an attractive photo ID badge.

Many Ordering Options
Including magnetic stripe, external card numbering, custom artwork and contact smart chip module.

	MIFARE® DESFire® EV1	MIFARE® DESFire® EV1 with HID PROX
Base Part Number	PVC - 1450 PET/PVC - 1456	PVC - 1451 PET/PVC - 1457
Operating Frequency	13.56 MHz	13.56 MHz (MIFARE DESFire EV1) 125 kHz (HID PROX)
RF Interface	ISO 14443 A, Parts 1-4 (DESFire EV1)	
Typical Maximum Read Range	DESFire: Up to 4" (10 cm)	DESFire: Up to 4" (10 cm) Prox: 2"- 4.5" (5.0 - 11.4 cm)
Transaction Time	< 100 ms	
Baud Rate	Activation at 106 kbps; Data transfer up to 848 kbps	
Memory Type	EEPROM 8 Kbytes	
Memory Structure	Up to 28 applications, with up to 32 files per application	
Operating Temperature	Model 1450/1451 PVC Cards: -40 to 122°F (-40 to 50°C) Model 1456/1457 Composite Cards: -40 to 158°F (-40 to 70°C)	
Operating Humidity	5% - 95% Non-Condensing	
Write Endurance	100,000 cycles min.	
Data Retention	10 years min	
Materials and Finish	Gloss white/white PVC or PVC/Polyester Composite	
Weight	0.20 oz (6.0 g)	0.24 oz (6.8 g)
Programming	Factory or Field	
Card Marking	Inkjet standard, Laser Engraving optional	
Custom Graphics	Optional	
Magnetic Stripe	Optional	
Printable	Yes (white/white card)	
Slot Punch	Not Available (MIFARE DESFire EV1 cards do not allow a slot punch)	
Visual Security Options	Optional	
Additional Security Options	Corporate 1000	
Warranty	Lifetime - see Sales Policy for complete details	

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